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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/728,454

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Michael See

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EXAMINER

HASHEM, LISA

ART UNIT

PAPER NUMBER

2614

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/728,454	<b>Applicant(s)</b> SEE ET AL.	
	<b>Examiner</b> LISA HASHEM	<b>Art Unit</b> 2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on 01 June 2009.

2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1-10, 12-19 and 27-30 is/are pending in the application.

    4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-10, 12-19, 27-30 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All    b) ☐ Some \*    c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
    Paper No(s)/Mail Date \_\_\_\_\_.

4) ☐ Interview Summary (PTO-413)  
    Paper No(s)/Mail Date \_\_\_\_\_.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: \_\_\_\_\_.

## **FINAL DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-10, 12-19, and 27-30 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 12-17, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,804,254 by Pearce et al, hereinafter Pearce, and in further view of U.S. Pat. No. 7,099,332 by Leung.

Regarding claim 1, Pearce discloses a system attribute exchange method for automatically providing at least one system attribute to one or more Voice-over-Internet Protocol (IP) devices (Fig. 1: 22-24; VoIP telephony devices; Fig. 2: 22, 23) (col. 3, line 66 – col. 4, line 10) in a network (Fig. 1, 20a (LAN); col. 1, lines 31-43; col. 2, line 61 – col. 3, line 19), the method comprising the steps of:

(a) automatically sending a Voice-over-IP device identification message (i.e. registration request including type of telephony device and device's IP and MAC addresses) (col. 7, lines 18-33) from the one or more Voice-over-IP devices (Fig. 1, 22; Fig. 2, 22) to a node (Fig. 1, 28: virtual telephony device; Fig. 2, 28) when the one or more Voice-over-IP device is operably coupled to the node (col. 4, lines 10-27; col. 6, line 56 – col. 7, line 33);

(b) automatically responding with a device identification acknowledgment message (i.e. instruction) from the node to the one or more Voice-over-IP devices, the device identification acknowledgment message comprising one or more system attributes (i.e. logical port identifiers; TCP and/or UDP ports) (col. 7, lines 34-67), including connectivity information (i.e. logical port identifiers of the virtual telephony device) (col. 7, lines 34-67).

Pearce does not disclose conveying the connectivity information from the one or more Voice-over-IP devices to a private branch exchange system that maintains a relation database; and associating the connectivity information at the relation database with a geographic location of the one or more Voice-over-IP devices.

Leung discloses conveying the connectivity information (i.e. a port number) from one or more Voice-over-IP devices (Fig. 8, 109) to a private branch exchange system that maintains a relation database (Fig. 8, 110; Fig. 10; i.e. a VLAN aware device such as: Webswitch by Ericsson which is an IP PBX; col. 8, lines 23-25); and associating the connectivity information at the relation database with a geographic location of the one or more Voice-over-IP devices (col. 3, lines 3-19; col. 8, lines 11-38; col. 9, line 57 – col. 10, line 14).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the method of Pearce to include a private branch exchange system that maintains a relation database as taught by Leung. One of ordinary skill in the art would have been lead to make such a modification to automatically update VoIP VLAN configuration in order to provide services for a VoIP device located in a VLAN.

Regarding claim 2, the system attribute exchange method of claim 1, wherein Pearce discloses the device identification acknowledgment is a Voice-over-IP device identification acknowledgment message (col. 7, lines 34-49).

Regarding claim 4, the system attribute exchange method of claim 2, wherein Pearce discloses the node is a switching device (col. 6, line 56 – col. 7, line 17), and the one or more system attributes comprise a switching device identification as well as a port identification (i.e. port 2000 and/or port 2100) of a port (i.e. TCP and/or UDP port) to which the Voice-over-IP device is connected (col. 7, lines 34-54).

Regarding claim 12, the system attribute exchange method of claim 1, wherein Pearce discloses the system attribute comprises connectivity information pertaining to physical connection of the one or more Voice-over-IP devices at the node (col. 4, lines 11-19; col. 7, lines 18-54).

Regarding claim 13, the system attribute exchange method of claim 12, wherein Leung discloses one or more system attributes are transmitted to a relation database (Fig. 8, 110; Fig. 10) that associates at least one port number to its geographic location (col. 3, lines 3-19), whereby the physical location of one or more devices (Fig. 8, 109) is determined from the IP address of a Voice-over-IP device (col. 8, lines 11-38; col. 9, line 57 – col. 10, line 14).

Regarding claim 14, the system attribute exchange method of claim 13, wherein Leung discloses a storage device is included in an Internet Protocol (IP) private branch exchange (PBX) system (Fig. 8, 110; Fig. 10) that cooperates with the Voice-over-IP device to provide voice communications (col. 8, lines 11-38; col. 9, line 57 – col. 10, line 14).

Regarding claim 15, the system attribute exchange method of claim 1, wherein Pearce discloses the node is a switching device (col. 6, line 56 – col. 7, line 33).

Regarding claim 16, the system attribute exchange method of claim 15, wherein Pearce discloses the switching device (Fig. 1, 28) is adjacent to at least one of the one or more devices (Fig. 1: 22-24) (col. 7, lines 18-22).

Regarding claim 17, the system attribute exchange method of claim 15, wherein Pearce discloses at least one of the one or more devices is a Voice-over-IP device (col. 3, line 66 – col. 4, line 10).

Regarding claim 30, the system attribute exchange method of claim 12, wherein Leung discloses one or more system attributes are transmitted to a relation database (Fig. 8, 110; Fig. 10) that associates at least one port number to its geographic location (col. 3, lines 3-19), whereby the physical location of one or more devices (Fig. 8, 109) is determined from the MAC address of a Voice-over-IP device (col. 8, lines 11-38; col. 9, line 57 – col. 10, line 14).

4. Claims 3, 5-10, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearce in view of Leung, as applied to claim 2, and in further view of U.S. Pat. No. 6,781,989 by Acharya.

Regarding claim 3, the system attribute exchange method of claim 2, wherein Pearce in view of Leung does not disclose the one or more system attributes comprises a Virtual Local Area network (VLAN) identification assigned to Voice-over-IP communications.

Acharya discloses a system attribute exchange method for automatically providing at least one system attribute to one or more Voice-over-IP devices (Fig. 1: 12, 14, 18, 20; devices) (col. 4, lines 5-21) in a network (i.e. IP based VLAN; col. 3, lines 27-31), the method comprising

the steps of:

(a) automatically sending a Voice-over-IP device identification message (i.e. frames) (col. 10, lines 4-21) from the one or more Voice-over-IP devices (Fig. 1: 12, 14, 18, 20; device) to a node (Fig. 3, 510: network interface device; col. 5, lines 40-46) when the one or more Voice-over-IP device is operably coupled to the node (col. 4, lines 5-21; col. 11, lines 55-61); and

(b) automatically responding with a device identification acknowledgment message (i.e. VLAN assignment) from the node, the device identification acknowledgement message comprising one or more system attributes (col. 2, lines 32-36; col. 3, lines 27-31; col. 11, lines 55-61; col. 12, lines 61-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Pearce in view of Leung to include one or more system attributes comprises a VLAN identification assigned to Voice-over-IP communications as taught by Acharya. In other words, one of ordinary skill in the art would have been lead to make such a modification of Pearce in view of Leung to include a VLAN identification, such as the VLAN identification of Acharya, to the acknowledgement message of Pearce in view of Leung so the first node of Pearce in view of Leung would know the VLAN identification the first node belongs to and include that identification with data frames. The benefit of providing the VLAN identification of Pearce in view of Leung was obvious and taught by Acharya: automatically communicate VLAN information to the first node with minimal delay.

Regarding claim 5, the system attribute exchange method of claim 3, wherein Pearce discloses the one or more Voice-over-IP devices comprise one or more Internet Protocol (IP) phones (col. 1, lines 31-43; col. 3, line 66 – col. 4, line 10).

Regarding claim 6, the system attribute exchange method of claim 3, wherein Pearce discloses the Voice-over-IP device is operably coupled to the node at the time of initialization of the Voice-over-IP device (col. 7, lines 24-33).

Regarding claim 7, the system attribute exchange method of claim 3, wherein Acharya discloses the Voice-over-IP device identification message and the Voice-over-IP device identification acknowledgment are Attribute Advertisement Protocol messages (col. 10, lines 4-21).

Regarding claim 8, the system attribute exchange method of claim 7, wherein Acharya discloses a destination address of the Voice-over-IP device identification message includes a unique medium access control (MAC) address indicative of a system attribute exchange between the Voice-over-IP device and node (col. 4, lines 55-63).

Regarding claim 9, the system attribute exchange method of claim 3, wherein Pearce discloses the Voice-over-IP device identification message is sent in response to a node initialization message (col. 7, lines 24-33).

Regarding claim 10, the system attribute exchange method of claim 9, wherein Pearce discloses the node initialization message (i.e. acceptance of telephony device registration) is a switching device initialization message transmitted by a switching device upon the initialization thereof (col. 7, lines 24-33).

Regarding claim 27, the system attribute exchange method of claim 8, wherein Acharya discloses the media access controller (MAC) address is a broadcast MAC address (col. 4, lines 55-63).

Regarding claim 28, the system attribute exchange method of claim 8, wherein Acharya



discloses the MAC address is a multicast MAC address (col. 4, lines 55-63).

5. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearce in view of Leung, as applied to claim 17, and in further view of Acharya.

Regarding claim 18, the system attribute exchange method of claim 17, wherein Pearce in view of Leung does not disclose at least one of the one or more system attributes is a VLAN identification substantially dedicated to Voice-over IP communication within the network.

Acharya discloses a system attribute exchange method for automatically providing at least one system attribute to one or more Voice-over-IP devices (Fig. 1: 12, 14, 18, 20; devices) (col. 4, lines 5-21) in a network (i.e. IP based VLAN; col. 3, lines 27-31), the method comprising the steps of:

(a) automatically sending a Voice-over-IP device identification message (i.e. frames) (col. 10, lines 4-21) from the one or more Voice-over-IP devices (Fig. 1: 12, 14, 18, 20; device) to a node (Fig. 3, 510: network interface device; col. 5, lines 40-46) when the one or more Voice-over-IP device is operably coupled to the node (col. 4, lines 5-21; col. 11, lines 55-61); and  
(b) automatically responding with a device identification acknowledgment message (i.e. VLAN assignment) from the node, the device identification acknowledgement message comprising one or more system attributes (col. 2, lines 32-36; col. 3, lines 27-31; col. 11, lines 55-61; col. 12, lines 61-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Pearce in view of Leung to include one or more system attributes comprises a VLAN identification assigned to Voice-over-IP communications as taught by Acharya. In other words, one of ordinary skill in the art would have been lead to make such a

modification of Pearce in view of Leung to include a VLAN identification, such as the VLAN identification of Acharya, to the acknowledgement message of Pearce in view of Leung so the first node of Pearce in view of Leung would know the VLAN identification the first node belongs to and include that identification with data frames. The benefit of providing the VLAN identification of Pearce in view of Leung was obvious and taught by Acharya: automatically communicate VLAN information to the first node with minimal delay.

Regarding claim 19, the system attribute exchange method of claim 18, wherein the Pearce in view of Leung in further view of Acharya discloses a switching device is made aware of the VLAN identification via a VLAN registration protocol (Pearce: col. 7, lines 24-67; Acharya: col. 12, lines 30-33 and lines 43-50).

6. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pearce in view of Leung in further view of Acharya, as applied to claim 19, and in further view of Meier.

Regarding claim 29, the system attribute exchange method of claim 19, wherein Pearce in view of Leung in further view of Acharya do not disclose the VLAN registration protocol is the Group Address Resolution Protocol (GARP) VLAN registration protocol.

Meier discloses a system attribute exchange method for automatically providing at least one system attribute to one or more devices in a network, the method comprising the steps of:

- (a) automatically sending a device identification message from the one or more devices (Fig. 2: A4, A5, B4, B5) to a node (Fig. 2, VLAN Switch) when the device is operably coupled to the node (col. 6, lines 14-20); and
- (b) automatically responding with a device identification acknowledgment message from the

node to the one or more devices, the device identification acknowledgement message comprising one or more system attributes (col. 6, lines 42-64).

Wherein Meier discloses the VLAN registration protocol is the GARP VLAN registration protocol (col. 4, lines 34-43; col. 5, lines 26-63; col. 7, lines 33-59).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the method of Pearce in view of Leung in further view of Acharya to include a GARP VLAN registration protocol as taught by Meier. One of ordinary skill in the art would have been lead to make such a modification to provide a protocol that sends a 'join' message to devices to join an attribute group and support registration of a device.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 Form.

9. Any response to this action should be mailed to:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Or faxed to:**

(571) 273-8300 (for formal communications intended for entry)

**Or call:**

(571) 272-2600 (for customer service assistance)

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LISA HASHEM whose telephone number is (571)272-7542. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Olisa Anwah/  
Primary Examiner, Art Unit 2614

/Lisa Hashem/  
Examiner, Art Unit 2614  
August 31, 2009